

Appl. No. 10/604,267
Amdt. dated October 27, 2006
Reply to Office action of July 27, 2006

Amendments to the Drawings:

5 The legend "Prior Art" has been added to figures 1-5 as required. Additionally, in Fig.7,
the phrase "task is executed" has been changed to "task executed" in items 32 and 34 and the
word "peirod" has been corrected to "period". No new material has been introduced.

Attachment: Replacement Sheet

6 page(s)

REMARKS/ARGUMENTS

1. Specification

Please replace the paragraphs as identified in the "Amendments to the Specification" section in this response. Amendments are made merely for grammatical reasons and no new material has been introduced.

2. Drawings

Figures 1-5 have been amended to each include the legend "Prior Art" as required by the Examiner. Additionally, in Fig.7, the phrase "task is executed" has been changed to "task executed" in items 32 and 34 and the word "peirod" has been corrected to "period" in item 34. No new material has been introduced.

3. Allowable material

The applicant acknowledges and appreciates the allowance of claim 6 and claims 2-5 if rewritten appropriately.

3. Claim rejections

Claim 1 is rejected under 35 U.S.C. 103(a) as being obvious over the admitted prior art in view of Sager et al. (US 6,852,764).

The applicant respectfully disagrees that the admitted prior art teaches claim 1 limitations of "determining an executing time period of a second calculation task according to an executing time period of the first calculation task".

The Examiner states that in the admitted prior art, every task is executed in two cycles and the next calculation is waited for turn to be executed with a stall cycle if possible.

However, Examiner cited Paragraph [0006] says that "an executing time period of the first functional unit 12 is one instruction cycle and an executing time period of the second functional unit 14 is two instruction cycles."

Thus, "an executing time period" is the duration required to execute one task, which is different than a fixed duration equal to the longest duration of completion for any supported task as the Examiner appears to be suggesting. Paragraphs [0010] and [0041] describe the real world differences between the admitted prior art and the present invention verifying the intent of the claim to mean that "an executing time period" means the duration that a particular task requires to be executed. Please note that the application also clearly indicates that the executing time period may occur at various locations within the "fixed duration" above described, such as an executing time period of a single cycle occurring in either E1 or E2 or a second executing time period of both E1 and E2 (Fig. 2-5, Paragraph [0010]) of a two cycle "fixed duration". Claim 1 includes the limitation of determining an executing time period of a second calculation task according to an executing time period of the first calculation task, something which the admitted prior art fails to disclose.

Secondly, the applicant agrees with the Examiner that the admitted prior art fails to disclose the determination of an execution time also depends on whether the second calculation task depends upon a result of the first calculation task and introduces Sagar to claim obviousness. The Examiner cites Col.5, line 50 - Col.6, line 8 of Sagar as a reference.

Upon close reading of the cited passage, Sagar teaches "Based on a combination of the data dependencies of various instructions and the anticipated execution time of instructions, the scheduler 30 determines the order of execution of instructions."

Thus Sagar teaches determining the order of instruction execution at least in part according to dependencies. Determining the order of instructions is not the same thing as determining when (the execution time) that the instruction is to be executed. The order of instructions just means which instruction is to be executed first, and has no necessary relationship to when each instruction is to be executed, something which is a limitation of claim 1. Sagar's "the anticipated execution time" does not seem to be defined but there is no reason to assume that it is the same thing as the claimed "executing time period" and specific teachings of every limitation in the claim is required for anticipation. Furthermore, claim 1 states that execution time is determined (in part) upon a result of the

first calculation task while Sagar re-orders tasks only if there is a dependency result.

Examiner cited paragraph [0009] of the present application clearly discusses ordering tasks according to dependencies and the applicant asserts that this text of Sagar
5 discloses nothing more than what can be found in said paragraph [0009]. Both Sagar and the admitted prior art teach executing instructions in an order according to dependencies. Thus, if the cited text of Sagar discloses what is already present in the admitted prior art, then the applicant asserts there is no motivation to combine the references. Additionally, the Examiner has already stated that said paragraph [0009] fails to disclose “determination
10 of an execution time also depends on whether the second calculation task depends upon a result of the first calculation task”, and since paragraph [0009] already discloses the order of execution is arranged according to dependencies, it is asserted that Sagar also fails to anticipate for the same reason.

15 For at least these reasons, the applicant believes that the present application represents a new and useful disclosure not anticipated or made obvious by known prior art alone or in combination, and respectfully requests reconsideration of claim 1.

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Sincerely yours,



Date: 10.27.2006

Winston Hsu, Patent Agent No. 41,526

5 P.O. BOX 506, Merrifield, VA 22116, U.S.A.

Voice Mail: 302-729-1562

Facsimile: 806-498-6673

e-mail : winstonhsu@naipo.com

- 10 Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)